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# State of California AIR RESOURCES BOARD

# EXECUTIVE ORDER A-8-50 Relating to Certification of New Motor Vehicles

### BAYERISCHE MOTOREN WERKE AG

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1988 model-year Bayerische Motoren Werke AG exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

Engine Family	Displacement Liters (Cubic Inches)		Exhaust Emission Control Systems (Special Features)				
JBM5.0V5F67X	5.0	(304.4)	Dual Heated Oxygen Sensors Dual Three-Way Catalysts (Electronic Port Fuel Injection)				

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

Hydrocarbons	Carbon Monoxide	Nitrogen Oxides		
Grams per Mile	Grams per Mile	Grams per mile		
0.41	7.0	0.7		

The following are the certification emission values for this engine family:

Hydrocarbons	Carbon Monoxide	Nitrogen Oxides
Grams per Mile	Grams per Mile	Grams per Mile
0.32	2.4	0.2

BE IT FURTHER RESOLVED: That the listed models were certified to the optional NOx emission standard thereby making the vehicle manufacturer subject to Section 1960.1.5 of Title 13, California Administrative Code which includes recall liability for emission control components up to 7 years or 75,000 miles if found defective by the Executive Officer.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the vehicle models listed have been granted an exemption from compliance with the requirements of the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s]..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 6

day of October, 1987.

K. D. Drachand, Chief Mobile Source Division



### ENGINEERING EMISSION CONTROL

17-30

Section 17.03.00

ARB SUPPLEMENTAL DATA SHEET

EO# A-8-50

Manufacturer

BMW

Engine Family

JBM5.0V5F67X

Evaporative Family

EV 50

Engine Type

4 cycle, V-60°

Liters (CID)

5.0 (305.1)

### **ABBREVIATIONS**

### Ignition System

CA-Centrifugal Advance
ECU-Electronic Engine Control
EI-Electronic Ignition
ESAC-Electronic Spark Advance
Control
VA-Vacuum Advance
VR-Vacuum Retard
BMCU-Bosch Motronic Control
Unit
EID-Electronic Ignition
Distributor

### Exhaust Emission Control System

AIP-Air Injection-Pump
AIV-Air Injection-Valve
DBC-Dual Bed Catalyst
EGR-Exhaust Gas Recirculation
EIC-Electronic Injection Control
EM-Engine Modification
OC-Oxidation Catalyst
OS-Oxygen Sensor
HOS-Heated Oxygen Sensor
SPL-Smoke Puff Limiter or
Throttle Delay
TOC-Trap Oxidizer, Continual
TOP-Trap Oxidizer, Periodical
TWC-Three Way Catalyst
WUOC-Warm-Up Oxydation Catalyst
WUTWC-Warm-Up Three-Way Catalyst

### Special Features

CCV-Combustion Chamber Valve CFI-Central Fuel Injection or Throttle Body Injection DID-Diesel Injection-Direct DIP-Diesel Injection-Prechamber EFI-Electronic Fuel Injection IC-Intercooler or Aftercooler MFI-Mechanical Fuel Injection OBD-On Board Diagnostic TC-Turbocharger

### Fuel System

CFI, CL, DID, DIP, EFI, MFI nV-nVenturi Caburetor FI-Fuel Injection Valves BMCU-Bosch Motronic Control Unit AMM-Air Mass Meter

Vehicle Model(s): BMW 750i

DRIVE SYSTEM: Front engine, rear wheel drive

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## ENGINEERING EMISSION CONTROL

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### AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

X Passer	igers Cars		Light-Duty	Trucks	_ Medium-Duty	Vehicles
X Gas	Diese	e 1		E.o. <u>A</u>	-8-50	<u> </u>
Manufactui	rer <u>BMW</u>			Engine Family	JBM5.0V5F67X	
Liter (CII				ing. Type	5.0/7 A4	
ECS	S (Special	I Featur	res) <u>TWC, H</u> C	os,eic (EFI)	(OBD Exemp	ut)
Engine Code	Venicle Model(s)		Equiv. Test Weignt	Ign.System Part No.	Fuel System Part No.	Catalyst Part No.
5.0/7 A4	BMW 750i	autom.	4 500 lbs.	EID	BMCU 0 261 200 156 AMM 0 280 212 010 FI 0 280 150 715	1 711 661 1 711 662
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Comments: See the preceding page for abbreviations and evaporative emission family identification.

For dyno test HP settings refer to the test vehicle requirement list.

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ED #A-8-50

# ENGINEERING EMISSION CONTROL

# TEST VEHICLE REQUIREMENTS

Actual Road Load Power (hp)	8.2
Equiv. Test Weight (1bs.)	4500
Model Type	7501
Engine Family	JBM5.0V5F67X

(automatic transmission: economy program)

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# ENGINEERING EMISSION CONTROL

20-27

ED# A-8-50.

Section 20.07.00 PARTS LIST

Heated oxygen sensors

	Part Number
Ignition System	
Distributor	1 235 522 365 1 235 522 421
Spark plug	F8 LCR
Ignition coil	0 211 118 335
	0 221 502 397
:	2051.0171.101
Fuel Injection System	
Motronic control unit	0 261 200 156
EML-control unit	1 137 328 019
Air mass meter	0 280 212 010
Temperature sensor	0 280 130 056
Fuel injection valves	0 280 150 715
fuel pressure regulator	0 280 160 500
Servo motor including	1
Throttle valve potentiomete	
Exhaust System	1 711 //1
Catalyst	1 711 661

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